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ABSTRACT

Punctuation and capitalization are basic, surface features of written communication. However, it was not until the nineteenth century that authorities recognized that punctuation marks should be primarily an integral part of the sentence pattern, not an indicator of pauses. Throughout the literature on punctuation two major purposes recur--to bring together and to separate. More recently, five major purposes for punctuation have been identified: to terminate and separate, to combine and separate, to introduce, to enclose, and to indicate omission. Generally, the rules for punctuation and capitalization are relatively standardized. Because of the large number of rules, however, errors can be expected--even among good writers. For most writers, the smaller set of rules that they know may be sufficient for adequate written communication. Nevertheless, sentence fragments, run-on sentences, and the punctuation of relative clauses are three problems that occur frequently. A review of the literature reveals that very little research has been conducted in the teaching of mechanics. Generally, introduction to mechanics begins with instruction in the rules, followed by mispunctuated or unpunctuated sentences that illustrate the need for appropriate punctuation. Whereas many people suggest teaching mechanics functionally--when students need it--they rarely have any suggestions about how to do this. (HOD)

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PUNCTUATION AND CAPITALIZATION: A REVIEW OF THE LITERATURE

Bruce Cronnell

ABSTRACT

The purposes of capitalization and punctuation are reviewed, with particular emphasis on the functions of punctuation. Major problems are discussed, as is the teaching of these mechanical skills.

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PUNCTUATION AND CAPITALIZATION: A REVIEW OF THE LITERATURE

Bruce Cronnell

Punctuation and capitalization are basic, surface features of written communication. An unpunctuated and uncapitalized text is difficult--although not impossible--to read. Neither punctuation nor capitalization rouses much excitement in people involved in composition (Bossone & Larson, 1980); this lack of interest is also suggested by the general label for these skills: mechanics.* In fact, capitalization arouses almost no interest (at least as reflected in the literature), so this paper will primarily address punctuation.

It seems to be universally agreed that punctuation and capitalization are audience-centered devices, that the purpose of mechanics is to help the reader.

> For written expression to be completely effective, attention must be paid to matters of mechanics and convention. The way expression is written must aid communication rather than distract from it. Errors in spelling, illegible handwriting, and improper capitalization and punctuation distract the reader of a selection from the thought itself. Such distractions interfere with communication and must be avoided. (Petty, 1962, pp. 63-64)

> Even though many writers do not want to be concerned with punctuation, capitalization, and spelling, they have to be because the reader cannot easily do without them. All of the mechanics are signals of one kind or another. Sending out the wrong signals is misdirecting the reader or, more often, momentarily delaying the decoding process. Readers don't like obstacles. (Irmscher, 1979, p. 126)

> As you write, keep your readers in mind and try to determine where they will need the help of punctuation marks to follow

*Mechanics may also include other surface features such as handwriting, spelling, syntax/grammar, and usage. However, as used in this paper, the term refers only to punctuation and capitalization (although the literature cited may have intended a broader meaning).

> your meaning or your emphasis. If you use too many punctuation marks, you may confuse your readers. If you use too few, you may make it difficult for them to see at a glance the words that go together and those that should be kept apart. A badly punctuated sentence or an unpunctuated sentence can mislead or confuse your readers. (D'Angelo, 1980, p. 578)
>
> Punctuation, of course, is not for the writer at all--it is for the reader. The writer already knows what he is saying, where the emphases and the pauses are. Punctuation reflects the response to the reader's problem. (Backscheider, 1972, p. 874)
>
> What, then, is the measure of appropriateness in punctuation? The degree of its success is unobtrusively helping the reader to recognize and anticipate the grammatical and logical structures he will encounter. Conversely, the only punctuation that is strictly wrong is that which gives the reader a cue in conflict with what a passage is actually intended to say. (Spradley, 1971, p. 25)

WHAT DOES PUNCTUATION REPRESENT?

Punctuation was originally used to tell the reader how to read aloud a piece of writing. Since modern writers do not generally expect their texts to be read aloud, punctuation for oral expression is no longer critical. Vallins (1956) notes that punctuation began its modern development after the introduction of printing and that early printed punctuation was based more "on breath pauses than on the syntactic pattern . . ." (p. 150). It was not until the nineteenth century that authorities recognized "that the punctuation mark should not be primarily an indicator of pauses, but an integral part of the sentence pattern" (p. 154).

Although the marking of pauses in the heavy-handed manner of earlier times is no longer acceptable, some authorities still believe that punctuation is a marker of speech. Moffett and Wagner (1976, p. 236) seem to have difficulty differentiating between writing and speech:

> . . . good punctuation is a set of signals showing the reader how to read the flow of words as the speaker [sic] would say them.
>
> The chief hurdle to punctuating well is not being aware of what one hears.
>
> . . . the first principle of punctuation--to segment the flow of speech.

Moffett and Wagner do not give reasons for this view of punctuation; perhaps it is based on the views of some structural linguists. However, most structuralists tend to qualify their claims that punctuation is based on speech. For example, Sopher (1977, p. 304) claims that "speech rhythm, adapted to the needs of the written language, should . . . constitute the basis of sound punctuation . . ." (emphasis added).

Roberts (1962 and, especially, 1956) teaches structural linguistics notions of stress, pitch, and juncture (cf. Trager & Smith, 1957) because he believes that they are determinants of punctuation. However, after describing how these features may be correlated with punctuation, he adds the following qualification:

> You must not suppose that writers always punctuate in writing as they do in speaking [sic]. Just as there are differences between sound and spelling, so there are differences between intonation and punctuation. In many places editors have regularized punctuation according to the word classes that occur instead of trying to follow intonation patterns. (1956, p. 237)

Fries (1952) states that punctuation is a marker of pitch, stress, and intonation, although he notes that some punctuation (e.g., in possessives) has nothing to do with speech. The following quotation, with all of its qualifications, suggests that even Fries isn't convinced of his own claims:

> Basically, then, the marks of punctuation are graphic devices which can operate in a limited way as structural signals in written materials which lack such features as intonation, pause, and stress. This does not mean that punctuation does or can represent the sound features of intonation or stress; it means simply that punctuation can provide a device to supplement the features of form and arrangement in some of those situations for which, in speech, intonation provides the distinguishing features. (p. 282)

Francis (1958) also believes that punctuation is related to speech. But he, too, realizes that this relationship is approximate and not always direct or consistent. Since a basic tenet of structural linguists is that oral language is primary and that writing is only a secondary representation of speech, it is not surprising that they try to derive punctuation from speech. However, even Fries and Francis--both good linguists and good English scholars--are forced to admit that writing (and therefore punctuation) has some independence of speech.

Most contemporary authorities believe that, while punctuation does have some reflexes in speech, it is a much more complex system. Whitehall (1956) avers that punctuation has some phonological (i.e., speech-related) characteristics, but that it is best seen as grammatical. Shaughnessy (1977, p. 24) says the following:

> Pauses mark rates of respiration, set off certain words for rhetorical emphasis, facilitate phonological maneuvers, regulate the rhythms of thought and articulation, and suggest grammatical structure. Modern punctuation, however, provides no score for such a complex orchestration. What it does is sharpen the sense of structure in a sentence, first by marking off its boundaries and second by showing how certain words, phrases, or clauses within the sentence are related.

Perhaps Quirk, Greenbaum, Leech, & Svartvik (1972, p. 1055) provide the most compelling description of the relation between punctuation on the one hand and speech and grammar on the other:

> . . . punctuation practice is governed primarily by grammatical considerations and is related to grammatical distinctions. Sometimes it is linked to intonation, stress, rhythm, pause, or any other of the prosodic features which convey distinctions in speech, but this is neither simple nor systematic, and traditional attempts to relate punctuation directly to (In particular) pauses are misguided. Nor, except to a minor and peripheral extent, is punctuation concerned with expressing emotive or rhetorical overtones, as prosodic features frequently are.*

THE PURPOSES OF PUNCTUATION

Punctuation is essential in contemporary English writing to make text easier to read. But how does punctuation make it easier for the reader? Long (1961, p. 467) states that ". . . the most important function of . . . punctuation . . . is to show what goes with what." D'Angelo (1980, p. 578) claims that "Punctuation is the use of standardized marks to separate words into phrases, clauses, and sentences." Throughout the literature on punctuation, these two major purposes of punctuation recur: to bring together (combine) and to separate.

Combining and separating may seem like conflicting points of view, but they really are not: Groups of words are combined by punctuation so that they can be separated from the rest of the text. A simple example can show this principle in action. A period at the end of a sentence has both combining and separating functions. The words between one period and the next are combined as one sentence; the period indicates

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*Only a few of the authorities reviewed note the rhetorical use of punctuation, and when they do, it is generally for sophisticated writers. Irmscher (1979), who insists on mastery of the basic mechanics of punctuation, also believes that punctuation "can be regarded as an element of style just as characteristic words and structures are" (p. 119). While this is undoubtedly true in some cases (e.g., writers who make heavy use of dashes), it is probably of minor instructional value.

that all these words go together. On the other hand, the period also indicates that the words in a sentence are separated from the words in other sentences. The two common punctuation faults relating to periods also illustrate combining and separating. Run-on sentences (not enough periods) don't have elements separated; too many words are combined. Sentence fragments (too many periods) separate elements that should be combined.

Some writers focus on the separating functions of punctuation. Yaggy (1953) says that punctuation separates or shows interruptions, but when he discusses specific marks, he refers to the combining functions (e.g., with the comma in compound sentences "there actually is a joining and a separation," p. 130). Christensen (1967) claims that punctuation separates, sets off, and anticipates. But the separation is of coordinate (joined) elements, the setting off combines the elements being set off, and the anticipation relates an introduction to what follows.

Some writers focus primarily on the purpose of punctuation within sentences. Spradley (1971) says that sentence-internal punctuation involves coordination (which is a combining) and suspension (which is a separating). Moe (1913) describes commas as separating (they ". . . <u>stand between</u> words or phrases . . .") or setting off (they ". . . <u>partition off</u> certain parts of the sentence . . ."; p. 105, emphasis in original). Sabin (1976) also agrees that commas separate or set off; yet the things separated (e.g., items in a series) are also grouped by the punctuation; words set off are themselves combined together apart from the rest of the sentence.

Irmscher (1969, 1979) describes five major purposes of punctuation:

1. To separate (terminal) (1979) (To terminate and separate, 1969)
2. To separate (internal) (1979) (To combine and separate, 1969)
3. To introduce
4. To enclose
5. To indicate omission (1979 only)

These five purposes are discussed in the following paragraphs.

1. Terminal separation is marked by periods, question marks, and exclamation marks, which indicate the end of a (written) sentence. (Irmscher notes that dashes, colons, and ellipsis may also indicate terminal separation, but this is generally with sophisticated writers.)

2. Internal separation is within a sentence, but because these punctuation marks are within an already separated punctuation unit (the sentence), they also serve the purpose of linking (combining) the elements of the sentence. Internal separation is accomplished with commas, semicolons, colons, and dashes. (Irmscher also includes hyphens and apostrophes here, but their position is tenuous.)

3. Introductions (to sentences) are generally marked by commas (much less frequently by colons and dashes--probably not frequently enough to be of instructional concern). However, the introducing function as separate from the internal separation function seems questionable, and Irmscher's reason for the introducing function (1969, p.194) is not convincing.

4. Enclosing is another kind of internal separation; here a separate function category may be justified because enclosure requires <u>two</u> punctuation marks: commas, dashes, parentheses, brackets, quotation marks.

The use of punctuation to enclose often causes problems because writers may forget to include both of the paired marks.

5. Omission can be indicated with periods, commas, dashes, ellipses, hyphens, and apostrophes. This category covers several levels of omission, from letters (the apostrophe in contractions) to sentences (ellipses in quoted material). The members of this category also vary considerably in frequency, from periods in abbreviations to hyphens that mark prefixes and suffixes presented in isolation.

Another kind of function that seems useful to consider is specification (Quirk et al., 1972, p. 1055):

> It is convenient to treat as a class those punctuation marks which (often in addition to marking the point at which one unit is separated from another) have a clear role in specifying a function. Thus the apostrophe in the reader's specifies the ending as genitive in contrast to the phonologically identical plural in the readers.

RULES OF PUNCTUATION AND CAPITALIZATION

Another way--the most common way--of viewing punctuation is to look at the functions of each punctuation mark. Generally, these uses are relatively standardized.* Farrington (1924) looked at 22 textbooks with 18-75 rules of punctuation each; out of a total of 1539 rules, he found only six contradictions. Thus he concludes: "Certainly punctuation is standardized! Until a new type of sentence structure appears, it will stay standardized!" (p. 265)

*One area of punctuation seems to be rather flexible: the use of hyphens in compounds. At least two books (Teall, 1937; Ball, 1951) have been written on the subject, and linguists (e.g., Hall, 1964) frequently have a lot to say about compounding--and thus, sometimes, about hyphenation. Although many rules have been proposed for hyphenating compounds (based on phonology, syntax, and/or semantics), no one has yet been able to enforce any standardization.

Rules for capitalization are also relatively standardized. However, they appear not to be so complete. The Government Printing Office (1967, p. 23) says that "It is impossible to give rules that will cover every conceivable problem in capitalization"; so the manual also includes a 27-page list of words to be capitalized--and not capitalized.

This paper does not present a list of rules for capitalization and punctuation since they are readily available elsewhere. Many elementary school textbooks (e.g., Thoburn, Schlatterbeck, & Terry, 1979) list the basic rules of mechanics; Gentry (forthcoming a,b) describes capitalization and punctuation instruction in such texts. Most high school textbooks (e.g., Warriner, Whitten, & Griffith, 1977) have even more complete lists. College textbooks (e.g., D'Angelo, 1980) generally have handbook sections that describe capitalization as well as the uses of each punctuation mark. And professional style manuals (e.g., The University of Chicago Press, 1969; Government Printing Office, 1967) have extensive descriptions--complete, one must assume--of the use of capitalization and of punctuation marks. (Such style manuals actually have more information than most people--other than professional editors--would even want to know.) A concise, but thorough, listing of the major mechanics rules is found in Humes (1979).

However, although rules of mechanics are relatively standardized, they are not all agreed upon; even authorities may disagree.

The two major style manuals do not always agree on capitalization: The University of Chicago Press (1969--see a. below) uses fewer capitals than the Government Printing Office (1967--see b. below).

a. That is mother over there.

   the Mississippi and Missouri rivers

(Historically, heavy punctuation--very heavy punctuation--was the norm. Since punctuation was used to mark possible pauses, a comma was inserted wherever a person might pause in speech. This permitted all kinds of comma uses that are absolutely forbidden today, e.g., between subject and verb, after that introducing a clause. In addition, this proliferation of commas led to the heavy use of semicolons where commas would be used today. Vallins (1956) has an extensive, richly illustrated, history of punctuation practices.)

THE FREQUENCY OF PUNCTUATION MARKS

Some people have counted punctuation marks in text to determine their frequency. (Interestingly, no studies have been found that were completed in the past 30 years, when computers could be used to perform this tedious task. This is true even though large data bases of text--e.g., Kucĕra & Francis, 1967--have been computerized.)

Ruhlen and Pressey (1924) looked at about 12,000 words from each of the following sources:

100 business letters and 50 professional letters (excluding headings, salutations, and closings--which would have heavily biased the frequency of colons and commas)

four magazines

four newspapers

Summey (1949) looked at 2000 sentences--100 each from 20 newspapers and magazines. The primary results of these two studies are shown in Table 1. (Both studies also report frequencies of specific uses of punctuation marks.) The relative frequency of the marks is very similar in the two studies. The differences are probably explained by changing tastes over

TABLE 1

The Frequency of Punctuation Marks in Two Studies

	Ruhlen & Pressey (1924)		Summey (1947)	
	No.[1]	%	No.[2]	%
Period	535	46	1930	45
Question Mark	14	1	59	1
Exclamation Mark	3	*	5	*
Comma	556	48	1929	45
Semicolon	22	2	66	2
Colon	11	1	59	1
Dash	21	2	173	4
Parentheses	7	1	88	2
Total	1169		4309	
Quotation Mark	44			
Apostrophe	40			

[1] Frequency per 10,000 words

[2] Frequency in 2000 sentences

*less than 0.5%

the 20 years between the studies. The increased use of the dash may result from more use of informal writing styles. The decrease in comma use appears to be the result of a "lighter" style of punctuation. (Summey also notes this change when comparing his 1947 study with one he did in 1918.)

These results indicate that writers can do quite well with only two marks--periods and commas. These statistics confirm Irmscher's remark (1969, pp. 191-192):

> The period and the comma are the basic marks of punctuation. Between them, they do everything punctuation needs to do. All the others are refinements of them; the others do more specially or more emphatically what the period and comma do. The period and the comma, therefore, are the utility marks.

Nonetheless, considerable instructional and testing time is spent on other marks that adults seldom use. However, a certain bias in Ruhlen and Pressey's and in Summey's samples should be noted: They looked at expository prose only. The study of narration (which elementary school children write a lot of) would undoubtedly raise the frequency of question marks, exclamation marks, quotation marks, and apostrophes--all of which receive much attention in elementary textbooks (see Gentry, forthcoming b).

PROBLEMS IN MECHANICS

Because of the large number of punctuation and capitalization rules, errors can be expected--even among good writers. However, in actual writing, students make relatively few mechanical errors, at least according to the National Assessment of Educational Progress (1972, 1975), which has analyzed a large number of writing samples from 9, 13, and 17 year olds. The general finding is that students do not make many errors in mechanics and that mechanics is not a problem (Mellon, 1975).

One reason that students make few mechanical errors in writing may be that they avoid the use of devices that they do not know how to use. (For example, if one does not know how to use the colon, it is quite possible to write fluently, frequently, and well without that mark--and, of course, to make no errors--whereas an attempt to use the mark might easily result in errors.) Tests of the use of all kinds of punctuation and capitalization devices--common and uncommon--tend to indicate that students do not know all the rules (Odom, 1964; Hofmeister, 1972). However, for most writers, the smaller set of rules that they do know may be sufficient for adequate written communication.

However, three problems need to be noted because they occur frequently and because they can either confuse the reader or change meaning, or both. These three problems are sentence fragments, run-on sentences, and the punctuation of relative clauses.

Fragments and run-ons are complementary: too many sentences versus too few sentences. A number of studies show that both are problems (e.g., Leonard, 1926; Mazur, 1976), although studies are still needed to address the syntactic/semantic nature and causes of the problem.* However, although fragments and run-ons are common problems, they may not necessarily affect the evaluation of a piece of writing (Stewart & Grobe, 1979).

Fragments are incomplete sentences that are punctuated as sentences--that is, beginning with a capital letter and ending with

*Kagan (1980) reports on structures that result in more errors in identification of fragments and run-ons, but gives no evidence that writers create errors with similar structures.

a period. Fragments are very common in speech, and are, consequently, appropriate for dialogue. Moreover, good writers sometimes use fragments. Usually to emphasize a point. Unfortunately student writers and many adults write fragments out of apparent ignorance rather than from rhetorical design. Such writers seem to feel either that the segment capitalized and punctuated as a fragment is a "complete thought" (the traditional definition of a sentence; cf. McCorkle, 1962) or that it needs emphasis. Since fragments appear to have some independent quality in the mind of the writer, they probably should be punctuated--but with a comma (or sometimes a dash or a colon), not with a period.

Fragments present the problem that not enough is included in what is punctuated as a sentence. Run on sentences present the problem that too much is punctuated as a sentence. A run-on sentence is two (or more) sentences capitalized and punctuated as one sentence. (Run-ons are sometimes called comma splices--i.e., two sentences "spliced" together with a comma. However, the term "run-on" is preferred here because it covers both comma splices and sentences consisting of two sentences without any punctuation.) Students and other writers apparently write run-ons because they feel that the two sentences belong together. While they may be correct that the two sentences belong together, they do not understand that two sentences cannot be joined either with no punctuation or with just a comma.*

*While this is the rule, there are naturally exceptions. Two (or more) short sentences are frequently combined with only commas (although never with no punctuation): e.g., You're happy, I'm sad. In addition, when three (or more) sentences are combined in series, comma punctuation is frequently used, especially if the sentences are not very long; e.g., Sharon went to France, Alan went to Nepal, Pat went to Kenya, but the rest stayed at home.

Run-ons may be corrected in three ways:

1. By inserting a period between the two sentences and beginning the second with a capital letter. This revision is clearly correct, but may not fulfill the writer's intention of showing a closeness between the two sentences.
2. By inserting a semicolon (or less frequently--and more sophisticatedly--a colon) between the two sentences. This revision keeps them separate (as sentences must be), but combines them within a higher level sentence.
3. By inserting a comma (or less frequently--and more sophisticatedly--a semicolon) and a coordinating conjunction.*

Roberts (1962) suggests that run-ons can be best corrected by making the relationship between the two sentences explicit verbally rather than simply spatially (as run-ons seem to do). Roberts' suggestions are probably ways that good writers most commonly connect two sentences (ideas, thoughts) to indicate that they are related. One way is to add a semicolon (or a period) and a "sentence connector."** The other way is to embed one sentence in the other as a subordinate clause.

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*Coordinating conjunctions are and, but, or, nor, for, so, yet. They can combine sentences with only a comma (and even sometimes without a comma). However, the status of these conjunctions is somewhat unclear (cf. Dawkins, 1962). The first four can coordinate sentence parts; the others cannot. For cannot begin an independently punctuated sentence; the others can (and therefore for presumably cannot follow a semicolon). Some writers do not use yet as a coordinating conjunction; instead, they use it as a sentence connector (see next footnote).

**For example, therefore, nevertheless, however, otherwise, moreover indeed, in fact, consequently, accordingly, hence, thus. Such words (and phrases) are distinguished from coordinating and subordinating conjunctions in that (1) they are movable within the sentence, (2) they may (sometimes, must) be followed by a comma, and (3) the clause (sentence) they are in must be preceded by a semicolon (or a period).

Fragments and run-ons both require writers to know what a written sentence is. People can speak in incomplete and ungrammatical sentences, but they cannot write in them. Thus students must understand "sentenceness." However, this presents a pedagogical problem: Considerable research over the last 50 years has indicated that the study of grammar does not improve writing. So how can students learn "sentenceness" without being taught grammar?

Shaughnessy (1977) recommends teaching basic sentence structure to students, starting with subject and predicate, then expanding simple patterns to help students develop a notion of what a written sentence is. This seems to be a way to teach "sentenceness" without teaching formal grammar. Many people (e.g., Bivens & Edwards, 1974) feel that some study of grammar is valuable for understanding what one is writing and how it can be improved. Past research in grammar teaching may have used grammar that was inappropriate, or that was taught poorly, or that was taught in such a way that students could not connect it with writing. More sophisticated study is needed of the role of grammar in the teaching of writing. Clearly, something has to be done to get rid of fragments and run-ons. However, since fragments and run-ons are defined in terms of sentences, and since sentences are defined in terms of grammar, some kind of grammar study needs somehow to be incorporated into composition instruction.

The third big problem area for mechanics is the punctuation of relative clauses. The rule is simple: (1) Restrictive relative clauses have no punctuation; (2) non-restrictive relative clauses must have commas.*

*Although the rule is simple, it is less than 200 years old (Vallins, 1956); in fact, even in much nineteenth century prose, restrictive clauses are punctuated.

(1) A person who lives in a white house has a lot of responsibility.

(2) The President, who lives in the White House, has a lot of responsibility.

Application of this rule seems to be very difficult--because the writer must differentiate between restrictive and non-restrictive clauses.

Shaughnessy (1977) suggests that one problem is terminology: a non-restrictive clause may suggest no punctuation rather than punctuation. Moreover, this technical meaning of "restriction" does not seem too obviously related to everyday meanings. Shaughnessy (1977, p. 30) suggests calling non-restrictive clauses "extra clauses" because they give extra (but not necessary) information and they get extra punctuation.

Although many authorities point out the importance of correct punctuation of relative clauses, few provide helpful advice on how to teach such punctuation.

RESEARCH IN THE TEACHING OF MECHANICS

Very little research appears to have been conducted in the teaching of mechanics. Few studies were found in the literature, and none of them is particularly helpful.

Zais (1963) studied 50 eleventh-grade students who were given lists of punctuation rules. Whenever they made a punctuation error in their writing, the error was marked, and they had to write the appropriate rule five times, along with sentences exemplifying the rule. The measures used to test punctuation ability were (1) sentences to be corrected and the appropriate rule indicated, and (2) compositions for which "error quotients" were computed: the number of errors divided by the number of possible errors.

Zais' results are ambiguous (to say the least). He found a "slight indication that pupils who know the principles punctuate with greater skill than those who do not" (p. 680). However, in some cases those who did not know the rules performed better than those who did. Although the error quotient for some rules decreased by 60% over the study, there was no change for some rules and even an increase in errors for others. These results hardly inspire confidence in a method that seems pedagogically questionable in the first place.

The study by Stoner, Beall, & Anderson (1972) got more clear-cut results, but with an even more questionable method. For 30 days, ninth-grade students were given a title and were required to write a 50-word paragraph in the first ten minutes of the class. Each punctuation and capitalization error was corrected in red (just what composition teachers are being told not to do!); papers were returned to students the following day. Papers were given an "A" for no errors, a "D" for one or more errors. Errors per 1000 words were dramatically reduced (over 50%) and the percentage of error-free paragraphs dramatically increased (nearly as much). No doubt students were terrified--which is one way to get them to learn. A questionnaire administered to students after the study found that they generally had a negative attitude toward writing (one can certainly imagine why).

Held's (1969) study is less controversial. Ninth-grade students listened to taped, programmed exercises that focused on the use of intonation in punctuation. Four 20-minute lessons were given over a three-week period, with some worksheets in between. Test measures were a dictation, a proofreading exercise (with the teacher reading--to supply

intonation cues), and a 150-word composition. The experimental subjects improved from pretest to posttest; the controls (who had no punctuation instruction) did not. One can conclude that if students are taught something, they are apt to learn it. However, since the study was so brief and since intonation is of only minor importance in punctuation, the results aren't too promising.

Brandt (1974) also studied the use of intonation to teach punctuation (and sentence-initial capitalization), but with second graders. While students in the intonation group did better than those receiving no instruction in punctuation, they did better than the traditional group (which was taught rules) on only one of the three measures used.

Two studies compare functional approaches (where students are taught punctuation and capitalization only in relation to the writing they have done) and traditional textbook approaches (where students learn rules and do exercises). Wood (1976) studied third graders for five weeks. She found no differences in the gain scores between the two groups, but did find that the gain for the traditional group was significant, while the gain for the functional group was not. However, the standardized test used may have favored the traditional group.

Burrus (1971) conducted a three-year study (grades 1-3) of these two approaches and found, at the end of the third year, that students taught functionally performed better on a standardized test than those taught traditionally. However, this study is seriously flawed because the two approaches were used in different schools, so any number of other factors may have been at work. Thus, although anecdotal evidence (e.g., Calkins, 1980) suggests that functional approaches to punctuation

are more effective than traditional, textbook, rule-based approaches, experimental results cannot support the claim.

HOW TO TEACH MECHANICS

Only a few suggestions for teaching mechanics are found in the literature. Generally instruction begins with teaching rules to students (e.g., Stoddard, 1976; Oregon Elementary English Project, 1971, 1972). Frequently, punctuation rules are followed (or occasionally preceded) by mispunctuated or unpunctuated sentences that illustrate the need for appropriate punctuation (e.g., W.W.H., 1926).

Once the rule has been taught, then the most common practice is the correction of unpunctuated and/or uncapitalized sentences to demonstrate application of the rule. (In addition, some instructors require memorization--as well as application--of rules.)

A number of authorities recommend the use of dictation to practice mechanics (Applegate, 1957; Koch & Brazil, 1978; Schofer, 1977).

Moffett (1968) suggests the use of dialogue to teach punctuation, although he seems to be alone in this suggestion.

Many people suggest teaching mechanics functionally--that is, when students need it (cf. Tiedt & Tiedt, 1967)--but they rarely have any suggestions about how to do this.

References

Applegate, M. To make mechanics serve ideas. Grade Teacher, 1957, 74, 38, 66-67.

Backscheider, P. Punctuation for the reader--a teaching approach. The English Journal, 1972, 61, 874-877.

Ball, A. M. The compounding and hyphenation of English words. New York: Funk & Wagnalls, 1951.

Bivens, W. & Edwards, A. Transformational grammar and writing improvement. 1974. ERIC No. ED 101 361.

Bossone, R. M. & Larson, R. L. Needed research in the teaching of writing. (Case 02-80) Center for Advanced Study in Education, The Graduate School and University Center of the City University of New York, 1980.

Brandt, D. D. A comparison of two instructional approaches to the teaching of selected punctuation and capitalization skills to beginning second-grade pupils. Dissertation Abstracts International, 1974, 34, 3823-A.

Burrus, D. J. A three year comparative study of the functional approach to teaching the mechanics of language. Dissertation Abstracts International, 1971, 31, 5243-A.

Calkins, L. M. When children want to punctuate: Basic skills belong in context. Language Arts, 1980, 57, 567-573.

Christensen, F. Notes toward a new rhetoric. New York: Harper & Row, 1967.

D'Angelo, F. J. Process and thought in composition. (2nd edition) Cambridge, MA: Winthrop Publishers, 1980.

Dawkins, J. A note on coordinators and subordinators. College Composition and Communication, 1962, 13, 38-40.

Farrington, D. D. The no-man's land of writing. The English Journal, 1924, 13, 264-267.

Francis, W. N. The structure of American English. New York: Ronald Press, 1958.

Fries, C. C. The structure of English. New York: Harcourt, Brace & World, 1952.

Gentry, L. Capitalization instruction in elementary school textbooks. (Technical Note) SWRL Educational Research and Development, Los Alamitos, CA, forthcoming (a).

Gentry, L. Punctuation instruction in elementary school textbooks. (Technical Note) SWRL Educational Research and Development, Los Alamitos, CA, forthcoming (b).

Government Printing Office. Style manual. (revised edition; abridged) Washington: U.S. Government Printing Office, 1967.

Hall, R. A. Jr. To hyphenate or not to hyphenate. The English Journal, 1964, 53, 662-665.

Held, J. R. Teaching punctuation in the ninth grade by means of intonation cues. Research in the Teaching of English, 1969, 2, 196-208.

Hofmeister, A. M. Diagnostic test, capital letters and punctuation: Teacher's manual. 1972. ERIC No. ED 131 468.

Humes, A. Post-elementary communication skills architecture: Writing mechanics. (Technical Note No. 3-79-13) SWRL Educational Research and Development, Los Alamitos, CA, 1979.

Irmscher, W. F. Teaching expository writing. New York: Holt, Rinehart and Winston, 1979.

Irmscher, W. F. Ways of writing. New York: McGraw-Hill, 1969.

Kagan, D. M. Run-on and fragment sentences: An error analysis. Research in the Teaching of English, 1980, 14, 127-138.

Koch, C., & Brazil, J. M. Strategies for teaching the composition process. Urbana, IL: National Council of Teachers of English, 1978.

Kučera, H., & Francis, W. N. Computational analysis of present-day American English. Providence, RI: Brown University Press, 1967.

Leonard, S. A. The Wisconsin tests of sentence recognition. The English Journal, 1926, 15, 348-357.

Long, R. B. The sentence and its parts. Chicago: University of Chicago Press, 1961.

McCorkle, J. N. Eliminating guess work from sentence punctuation. The English Journal, 1962, 15, 673-680.

McCrimmon, J. M. Commas and conformity. College English, 1939, 1, 68-70.

McKee, J. H. A small plea for conformity. The English Journal, 1939, 28, 312-314.

McMillan, J. B. A small plea for facts before legislation. College English, 1939, 1, 70-71.

Mazur, C. Young writers' error tendency. 1976. ERIC No. ED 134 987.

Mellon, J. C. National Assessment and the teaching of English. Urbana, IL: National Council of Teachers of English, 1975.

Moe, M. W. Teaching the use of the comma. The English Journal, 1913, 2, 104-108.

Moffett, J. Teaching the universe of discourse. Boston: Houghton Mifflin, 1968.

Moffett, J., & Wagner, B. J. Student-centered language arts and reading, K-13. (2nd edition) Boston: Houghton Mifflin, 1976.

National Assessment of Education Progress. Writing mechanics, 1969-1974. (Writing Report No. 05-W-01.) Washington, DC: U.S. Government Printing Office, 1975.

National Assessment of Educational Progress. Writing: National results--Writing mechanics. (Report 8.) Washington, DC: U.S. Government Printing Office, 1972.

Odom, R. R. Capitalization and punctuation: A diagnostic test. California Journal of Educational Research, March 1964, 68-75.

The Oregon Elementary English Project. Road signs to writing: Language curriculum, Levels C-D; Teacher's Guide. Eugene: University of Oregon, 1972. ERIC No. ED 075 832.

The Oregon Elementary English Project. Road signs to writing: Language curriculum, Grades V-VI; Teacher's guide. Eugene: University of Oregon, 1971. ERIC No. ED 075 841.

Petty, W. T. The language arts in elementary school. New York: Center for Applied Research in Education, 1962.

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. A grammar of contemporary English. New York: Seminar Press, 1972.

Roberts, P. English sentences. New York: Harcourt, Brace & World, 1962.

Roberts, P. Patterns of English. New York: Harcourt, Brace, 1956.

Ruhlen, H., & Pressey, S. L. A statistical study of current usage in punctuation. The English Journal, 1924, 12, 325-331.

Sabin, W. A. The comma trauma. Journal of Educational Communication, 1976, 2, 16-18.

Schofer, G. Teachers should be dictators. Language Arts, 1977, 54, 401-402.

Shaughnessy, M. P. Errors and expectations. New York: Oxford University Press, 1977.

Sopher, H. The problem of punctuation. English Language Teaching Journal, 1977, 31, 304-313.

Spradley, J. The agenwit of inpoint [sic] (a review of punctuation). Journal of English Teaching Techniques, 1971, 4, 23-31.

Stewart, M. F., & Grobe, C. H. Syntactic maturity, mechanics of writing, and teachers' quality ratings. Research in the Teaching of English, 1979, 13, 207-215.

Stoddard, T. D. Challenging the great punctuation copout. Paper presented at the annual meeting of the American Business Communication Association, San Diego, December, 1976. ERIC No. ED 136 283.

Stoner, D., Beall, L. L., & Anderson, A. A systems approach to the teaching of the mechanics of English expression. Research in the Teaching of English, 1972, 6, 200-211.

Summey, G. American punctuation. New York: Ronald Press, 1949.

Teall, E. N. Meet Mr. Hyphen--and put him in his place. New York: Funk & Wagnalls, 1937.

Thoburn, T., Schlatterbeck, R., & Terry, A. Macmillan English. New York: Macmillan, 1979.

Tiedt, I. M. & Tiedt, S. W. Contemporary English in the elementary school. Englewood Cliffs, NJ: Prentice-Hall, 1967.

Trager, G. L., & Smith, H. L., Jr. An outline of English structure. Washington, DC: American Council of Learned Societies, 1957.

The University of Chicago Press. A manual of style. (12th edition) Chicago: University of Chicago Press, 1969.

Vallins, G. H. The pattern of English. London: Andre Deutsch, 1956.

W. W. H. [sic]. Lesson plan: Tenth-grade mechanics. The English Journal, 1926, 15, 706-707.

Warriner, J. E., Whitten, M. E., & Griffith, F. English grammar and composition. New York: Harcourt, Brace, Jovanovich, 1977.

Whitehall, H. Structural essentials of English. New York: Harcourt, Brace, 1956.

Wood, P. J. An experimental comparison of two methods of teaching language mechanics to third grade students. Dissertation Abstracts International, 1976, 36, 7178-A.

Yaggy, E. Let's take the guesswork out of punctuation. College Composition and Communication, 1953, 4, 128-131.

Zais, R. S. The linguistic characteristics of punctuation symbols and the teaching of punctuation skills. The English Journal, 1963, 52, 677-681.